



# UNITED STATES PATENT AND TRADEMARK OFFICE

*Dehn*  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,191	11/25/2003	Hun-Suk Yoo	6161.0099.US	4232
58027	7590	03/06/2006		EXAMINER
		H.C. PARK & ASSOCIATES, PLC		ROY, SIKHA
		8500 LEESBURG PIKE		
		SUITE 7500	ART UNIT	PAPER NUMBER
		VIENNA, VA 22182		2879

DATE MAILED: 03/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/720,191	YOO ET AL.
	Examiner Sikha Roy	Art Unit 2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 15 December 2005.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-20 is/are pending in the application.  
 4a) Of the above claim(s) 10-20 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-9 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 25 November 2003 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>5/17/05</u> .	6) <input type="checkbox"/> Other: _____.

**DETAILED ACTION**

***Election/Restrictions***

Applicant's election of Group I claims 1-9 in the reply filed on December 15, 2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 10-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group II, there being no allowable generic or linking claim.

***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,3-5,7-9 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,817,917 to Kado et al.

Regarding claim 1 Kado discloses (Figs. 1, 3A, 3B column 4 lines 23-37, column 7 lines 43-56, column 8 lines 1-17) a plasma display panel comprising a first substrate 10 and a second substrate 20 opposing one another with a predetermined gap therebetween, a sealant 15 formed on opposing surfaces of the first and second substrates around an outer circumferential area wherein the sealant is formed of regions having a first width of substantially the same size and regions 16 having a second width wherein the second width is greater than the first width.

Regarding claim 3 Kado discloses in Fig. 3B the plurality of regions of the sealant having the second width 16 are formed at predetermined intervals around the circumferential area of the first and the second substrate.

Regarding claim 4 it is clearly evident from Fig 3B that when moving on one direction along the long axis of the sealant the regions of the sealant having second width gradually increases in size from regions of the sealant 15 having first width until reaching the size of the second width 16, the width of the sealant gradually decreases in size until it reaches the size of the first width.

Regarding claim 5 Kado discloses (column 7 line 45) the sealant is a sealing glass frit.

Regarding claim 7 Kado discloses the limitations which are same as those of claim1 and further discloses (Figs. 3B, 6A) the cross-section of the sealant is band-shaped with a plurality of nodes 16.

Regarding claim 8 Kado discloses (Fig. 3B) the nodes 16 are formed at predetermined intervals around the peripheral areas of the first and second substrate.

Regarding claim 9 Kado discloses (column 7 line 45) the sealant is a sealing glass frit.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Kado.

Regarding claim 2 Kado discloses (Fig. 10 column 12 lines 29-51) clamps 50 along the circumference of the first and second substrate 10, 20 are used to hold the substrates 10,20 aligned.

Kado does not explicitly disclose the regions of the sealant having second width located at areas where sealing pressure is concentrated.

It is well known in the art that sealing clamps mounted along the peripheral region are used for applying a predetermined pressure so as to maintain a combination/attachment state between the first and second substrates. It is noted that the sealing pressure provided by the sealing clamps can be applied more effectively

where the sealing frit mass is concentrated. Therefore it would have been obvious tone of ordinary skill in the art at the time of invention to apply the sealing pressure in the regions of the sealant having second width with more sealant than the regions of the first width of Kado for applying predetermined pressure more effectively.

Regarding claim 6 it would have been obvious to specify the locations of the sealing clips of Kado mounted to the first and second substrates at the regions of the second widths of the sealant for applying predetermined pressure more effectively between and hence better alignment of the substrates.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 6,479,944 to Lee et al. discloses sealing clips or pressurization means mounted along the first and second substrates for applying predetermined pressure. U.S. Patent 6,545,410 to Wu, and U.S. Patent 6,495,262 to Igeta disclose method of sealing substrates for a plasma display panel.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (571) 272-2463. The examiner can normally be reached on Monday-Friday 8:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Sikha Roy*

Sikha Roy  
Patent Examiner  
Art Unit 2879